



- 1 -

SEQUENCE LISTING

<110> Luecke, Hartmut
Prosise, Glen

<120> Crystal Structures of T. Foetus Inosine
Monophosphate Dehydrogenase In Complex With Substrate,
CoFactor and Analogs and Uses Thereof

<130> 66778-355

<140> US 10/663,347

<141> 2003-09-15

<150> 60/410,523

<151> 2002-09-13

<150> 60/412,044

<151> 2002-09-18

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 503

<212> PRT

<213> Tritrichomonas foetus

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Leu	Ser	Thr	Pro	Leu	Val	Lys	Phe	Gln	Lys	Gly	Gln	Gln	Ser	Glu	Ile
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Asn	Leu	Lys	Ile	Pro	Leu	Val	Ser	Ala	Ile	Met	Gln	Ser	Val	Ser	Gly
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Glu	Lys	Met	Ala	Ile	Ala	Leu	Ala	Arg	Glu	Gly	Gly	Ile	Ser	Phe	Ile
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Phe	Gly	Ser	Gln	Ser	Ile	Glu	Ser	Gln	Ala	Ala	Met	Val	His	Ala	Val
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Lys	Asn	Phe	Lys	Ala	Gly	Phe	Val	Val	Ser	Asp	Ser	Asn	Val	Lys	Pro
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Asp	Gln	Thr	Phe	Ala	Asp	Val	Leu	Ala	Ile	Ser	Gln	Arg	Thr	Thr	His
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Asn	Thr	Val	Ala	Val	Thr	Asp	Asp	Gly	Thr	Pro	His	Gly	Val	Leu	Leu
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Gly	Leu	Val	Thr	Gln	Arg	Asp	Tyr	Pro	Ile	Asp	Leu	Thr	Gln	Thr	Glu
145					150					155					160
Thr	Lys	Val	Ser	Asp	Met	Met	Thr	Pro	Phe	Ser	Lys	Leu	Val	Thr	Ala

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His	Gln	Asp	Thr	Lys	Leu	Ser	Glu	Ala	Asn	Lys	Ile	Ile	Trp	Glu	Lys				
				180				185						190					
Lys	Leu	Asn	Ala	Leu	Pro	Ile	Ile	Asp	Asp	Asp	Gln	His	Leu	Arg	Tyr				
		195					200					205							
Ile	Val	Phe	Arg	Lys	Asp	Tyr	Asp	Arg	Ser	Gln	Val	Cys	His	Asn	Glu				
	210				215					220									
Leu	Val	Asp	Ser	Gln	Lys	Arg	Tyr	Leu	Val	Gly	Ala	Gly	Ile	Asn	Thr				
225					230					235				240					
Arg	Asp	Phe	Arg	Glu	Arg	Val	Pro	Ala	Leu	Val	Glu	Ala	Gly	Ala	Asp				
				245				250						255					
Val	Leu	Cys	Ile	Asp	Ser	Ser	Asp	Gly	Phe	Ser	Glu	Trp	Gln	Lys	Ile				
		260					265						270						
Thr	Ile	Gly	Trp	Ile	Arg	Glu	Lys	Tyr	Gly	Asp	Lys	Val	Lys	Val	Gly				
	275					280						285							
Ala	Gly	Asn	Ile	Val	Asp	Gly	Glu	Gly	Phe	Arg	Tyr	Leu	Ala	Asp	Ala				
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Gly	Ala	Asp	Phe	Ile	Lys	Ile	Gly	Ile	Gly	Gly	Gly	Ser	Ile	Cys	Ile				
305				310				315						320					
Thr	Arg	Glu	Gln	Lys	Gly	Ile	Gly	Arg	Gly	Gln	Ala	Thr	Ala	Val	Ile				
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Asp	Val	Val	Ala	Glu	Arg	Asn	Lys	Tyr	Phe	Glu	Glu	Thr	Gly	Ile	Tyr				
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Ile	Pro	Val	Cys	Ser	Asp	Gly	Gly	Ile	Val	Tyr	Asp	Tyr	His	Met	Thr				
	355				360							365							
Leu	Ala	Leu	Ala	Met	Gly	Ala	Asp	Phe	Ile	Met	Leu	Gly	Arg	Tyr	Phe				
	370				375						380								
Ala	Arg	Phe	Glu	Glu	Ser	Pro	Thr	Arg	Lys	Val	Thr	Ile	Asn	Gly	Ser				
385				390						395				400					
Val	Met	Lys	Glu	Tyr	Trp	Gly	Glu	Gly	Ser	Ser	Arg	Ala	Arg	Asn	Trp				
				405				410						415					
Gln	Arg	Tyr	Asp	Leu	Gly	Gly	Lys	Gln	Lys	Leu	Ser	Phe	Glu	Glu	Gly				
		420					425						430						
Val	Asp	Ser	Tyr	Val	Pro	Tyr	Ala	Gly	Lys	Leu	Lys	Asp	Asn	Val	Glu				
	435					440						445							
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	450				455					460									
Thr	Ile	Pro	Gln	Leu	Gln	Ser	Lys	Ala	Lys	Ile	Thr	Leu	Val	Ser	Ser				
465				470				475						480					
Val	Ser	Ile	Val	Glu	Gly	Gly	Ala	His	Asp	Val	Ile	Val	Lys	Asp	Arg				
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Ile	Asn	Asp	Tyr	His	Pro	Lys													
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<212> PRT

<213> Tritrichomonas foetus

<220>

<221> MOD_RES

<222> 319

<223> Xaa = S-Hydroxycysteine

<400> 2

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			20					25					30		
Leu	Ser	Thr	Pro	Leu	Val	Lys	Phe	Gln	Lys	Gly	Gln	Gln	Ser	Glu	Ile
		35					40					45			
Asn	Leu	Lys	Ile	Pro	Leu	Val	Ser	Ala	Ile	Met	Gln	Ser	Val	Ser	Gly
	50					55					60				
Glu	Lys	Met	Ala	Ile	Ala	Leu	Ala	Arg	Glu	Gly	Gly	Ile	Ser	Phe	Ile
65					70					75					80
Phe	Gly	Ser	Gln	Ser	Ile	Glu	Ser	Gln	Ala	Ala	Met	Val	His	Ala	Val
				85					90					95	
Lys	Asn	Phe	Lys	Ala	Gly	Phe	Val	Val	Ser	Asp	Ser	Asn	Val	Lys	Pro
			100					105					110		
Asp	Gln	Thr	Phe	Ala	Asp	Val	Leu	Ala	Ile	Ser	Gln	Arg	Thr	Thr	His
		115					120					125			
Asn	Thr	Val	Ala	Val	Thr	Asp	Asp	Gly	Thr	Pro	His	Gly	Val	Leu	Leu
	130					135					140				
Gly	Leu	Val	Thr	Gln	Arg	Asp	Tyr	Pro	Ile	Asp	Leu	Thr	Gln	Thr	Glu
145					150					155					160
Thr	Lys	Val	Ser	Asp	Met	Met	Thr	Pro	Phe	Ser	Lys	Leu	Val	Thr	Ala
				165					170					175	
His	Gln	Asp	Thr	Lys	Leu	Ser	Glu	Ala	Asn	Lys	Ile	Ile	Trp	Glu	Lys
			180					185					190		
Lys	Leu	Asn	Ala	Leu	Pro	Ile	Ile	Asp	Asp	Asp	Gln	His	Leu	Arg	Tyr
		195					200					205			
Ile	Val	Phe	Arg	Lys	Asp	Tyr	Asp	Arg	Ser	Gln	Val	Cys	His	Asn	Glu
	210					215					220				
Leu	Val	Asp	Ser	Gln	Lys	Arg	Tyr	Leu	Val	Gly	Ala	Gly	Ile	Asn	Thr
225					230					235					240
Arg	Asp	Phe	Arg	Glu	Arg	Val	Pro	Ala	Leu	Val	Glu	Ala	Gly	Ala	Asp
				245					250					255	
Val	Leu	Cys	Ile	Asp	Ser	Ser	Asp	Gly	Phe	Ser	Glu	Trp	Gln	Lys	Ile
			260					265					270		
Thr	Ile	Gly	Trp	Ile	Arg	Glu	Lys	Tyr	Gly	Asp	Lys	Val	Lys	Val	Gly
		275					280						285		
Ala	Gly	Asn	Ile	Val	Asp	Gly	Glu	Gly	Phe	Arg	Tyr	Leu	Ala	Asp	Ala
	290					295					300				
Gly	Ala	Asp	Phe	Ile	Lys	Ile	Gly	Ile	Gly	Gly	Gly	Ser	Ile	Xaa	Ile
305					310					315					320
Thr	Arg	Glu	Gln	Lys	Gly	Ile	Gly	Arg	Gly	Gln	Ala	Thr	Ala	Val	Ile
				325					330					335	
Asp	Val	Val	Ala	Glu	Arg	Asn	Lys	Tyr	Phe	Glu	Glu	Thr	Gly	Ile	Tyr
			340					345					350		
Ile	Pro	Val	Cys	Ser	Asp	Gly	Gly	Ile	Val	Tyr	Asp	Tyr	His	Met	Thr
		355					360					365			
Leu	Ala	Leu	Ala	Met	Gly	Ala	Asp	Phe	Ile	Met	Leu	Gly	Arg	Tyr	Phe
	370					375					380				
Ala	Arg	Phe	Glu	Glu	Ser	Pro	Thr	Arg	Lys	Val	Thr	Ile	Asn	Gly	Ser
385					390					395					400
Val	Met	Lys	Glu	Tyr	Trp	Gly	Glu	Gly	Ser	Ser	Arg	Ala	Arg	Asn	Trp

										405								410								415		
Gln	Arg	Tyr	Asp	Leu	Gly	Gly	Lys	Gln	Lys	Leu	Ser	Phe	Glu	Glu	Gly													
										420			425					430										
Val	Asp	Ser	Tyr	Val	Pro	Tyr	Ala	Gly	Lys	Leu	Lys	Asp	Asn	Val	Glu													
										435			440					445										
Ala	Ser	Leu	Asn	Lys	Val	Lys	Ser	Thr	Met	Cys	Asn	Cys	Gly	Ala	Leu													
										450			455					460										
Thr	Ile	Pro	Gln	Leu	Gln	Ser	Lys	Ala	Lys	Ile	Thr	Leu	Val	Ser	Ser													
465										470			475					480										
Val	Ser	Ile	Val	Glu	Gly	Gly	Ala	His	Asp	Val	Ile	Val	Lys	Asp	Arg													
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Ile	Asn	Asp	Tyr	His	Pro	Lys																						
500																												